and S.; but S.E. of it he mentions Múlí, in the country of the Límiyín, and Yúfí (Nufi?), one of the greatest states of Negroland. Ibn Khaldún has borrowed from Ibn Saíd (who wrote before the close of the thirteenth century, consequently between the journeys of El Bekrí and Ibn Batútah) a list of twelve negro states extending from the shores of the Western Ocean to the Nile. For its details, however, as well as for an idea of the light reflected on it from the writings of Makrízí and Leo Africanus, we must refer to Mr. Cooley's pages.

Enough has been said to account for the importance we attribute to the appearance of this work; more could not be accomplished in the brief space of an analysis like the present. The book is characterised throughout by acuteness and sound judgment. Further inquiry must necessarily modify some of its details, but the outline will remain unaffected. From the dedication we learn that the Essay was suggested by some extracts from the writings of Ibn Khaldún and Ibn Batútah, communicated by Don Pascual de Gayangos to the author. From a note at p. 70 we are led to infer that the eminent Arabic scholar just named has completed a translation of the entire work of Ibn Batútah, of which he possesses a copy. Every geographer must join in the wish expressed by Mr. Cooley that this translation may soon be presented to the public.

III.—*Recherches sur la Priorité de la Découverte des Pays situés sur la Côte Occidentale de l'Afrique, au delà du Cap Bojador, et sur les Progrès de la Science Géographique, après les Navigations des Portugais, au XV^me^ Siècle.* Par le Vicomte de Santarem. Accompagnées d'un Atlas composé de Mappemondes et de Cartes pour la plupart inédites, dressées depuis le XI^me^ jusqu'au XVII^me^ Siècle.—By the Editor.

The noble author of this valuable contribution to the history of geography says at the conclusion of his introductory remarks,—"We give up the form of our work to the critic: it is full of repetitions, but it has been necessary to recur often to the same authorities, either to throw a strong light on the most memorable of discoveries, or to place our arguments on a secure foundation. Many of the faults which may be attributed to this work are inherent in its nature. In another volume, which we propose to send to press in the course of this year (1842), and in which we inquire into the causes which contributed to prepare the Portuguese and Spaniards to undertake their great maritime expeditions in the fifteenth century, we will fully develop some

points in the history of cosmography and the construction of maps, which we have only been able to touch upon in passing in this work."

In forming an estimate of the merits of the Vicomte's Researches, it is but fair to keep these remarks in view. The work is polemical: its direct and main object is to settle the question as to the priority of the discovery of the S.W. coast of Africa; the light which it throws on the history of geography and geographical science is an indirect consequence of the manner in which the argument is conducted. It is true that the indirect results of the investigation are, in our eyes, of far more consequence than the direct; but that they are the indirect results is a sufficient apology for what severe criticism might find fault with in the manner of stating them.

In his main object we admit that the Vicomte appears to us perfectly successful. He has proved that there is no reason to believe that either the Arabs or any European nation ever navigated the ocean which washes the shores of western Africa to the S. of Cape Bojador before that cape was doubled, in 1433, by Gil Eannes; and more particularly he has proved that there is no credible evidence to support the stories of discoveries on that coast by the mariners of Dieppe in 1364, and of a commercial intercourse between Normandy and the west coast of Africa established in consequence of these discoveries.

The first author who mentions the voyages of the Dieppe mariners to the S.W. coast of Africa is Villaut de Bellefond, who, having made a voyage to the coast of Guinea in 1666-67, published an account of it, which he dedicated to Colbert. This author asserts that previous to 1364 trading expeditions had been made from Normandy to the Atlantic coast of Africa, and that in that year "the merchants of Rouen joined with those of Dieppe to fit out four vessels instead of two for the coast of Guinea." Villaut makes this assertion without citing any authority in support of it. In 1671 the Sieur d'Elbée published an account of his voyage to the islands on the coast of Guinea in 1669-70, in which he repeats Villaut's story, but without adducing any authority. Manesson-Mallet, who published a 'Description de l'Univers' in 1683, repeats the assertion in the same loose manner. A description of the coasts of Guinea was published at Amsterdam by Dapper, a Dutch physician, in 1686. This author, speaking of Mina, says,—"Some years ago the Dutch, repairing a battery which is called the French Battery, because in the opinion of the natives the French were masters there before the Portuguese, found the two first figures of the number thirteen hundred cut upon a stone, but it was impossible to distinguish the other two," &c. The Sieur de la Croix, in his 'Rélation Universelle de

l'Afrique Ancienne et Moderne,' published in 1688, and Masseville, in his 'Histoire Sommaire de Normandie,' published at Rouen in 1693, mention the discoveries of the Dieppe mariners; but both cite Manesson-Mallet as their authority. In 1708 Corneille, in one of the articles of his Geographical Dictionary, repeats the assertion, but the article is copied almost *verbatim* from Villaut. In 1728 Père Labat at last professes to give something like evidence for the assertion. He quotes as his authority a paper in the archives of Dieppe, adding, "The fire at Dieppe in 1694 is the cause why I do not insert this document at length, but the date and other circumstances are extracted from manuscript annals of Dieppe." These "annals," he says, are in the possession "of one N——." The story is repeated by several other authors: the only one, however, which deserves mention, and that only on account of its official character, is the 'Notice Statistique des Colonies Françaises,' vol. iii., published at Paris by order of the government in 1839. It is enough to say that the compilers of this report have been able to produce no contemporary document relating to French commercial companies trading with Africa of an earlier date than 1664, and no commercial treaty with African kings of an earlier date than 1785. This, we believe, is the whole case in support of the discoveries of the Normans on the S.W. coast of Africa in the fourteenth century: for the argument founded on the enterprising spirit of the Normans, and the possibility of their having made discoveries on the coast of Africa, is of too shadowy a nature to be grappled with. It rests, moreover, upon a fallacy: Normans, when used to designate hardy maritime adventurers, means the piratical bands who issued from the north of Europe; when used to designate the pretended discoverers of the S.W. coast of Africa, it means the inhabitants of the French province of Normandy. The few real Normans among the inhabitants of that province were very differently employed in the fourteenth century than in making trading voyages, and the remainder of the population of Normandy were not a whit more enterprising mariners than the rest of the French nation.

The evidence in support of the Dieppe discoveries may be easily disposed of. With the exception of Dapper and Labat all the authorities cited merely echo one another. They repeat a story which appears to have grown up among the French about the middle of the seventeenth century (for it is not necessary to suppose that Villaut deliberately invented it), that the French had made settlements on the Atlantic coasts of Africa before the Portuguese. No written evidence of their having done so of an earlier date than Villaut has yet been adduced. The opinion of the natives referred to by Dapper is no sufficient evidence of

what must have happened more than 300 years before his time. His story of the stone, with some year in the fourteenth century engraven on it in *Arabic numerals*, is palpably a mistake of ignorant men. The assertion of Père Labat that a document existed in the archives of Dieppe previous to the fire of 1694, is untenable. Masseville, whose History of Normandy was published the year before the fire, and who repeats Villaut's story, knows nothing of this document. Besides, the merchants of Rouen are said to have been partners in the company trading to Africa in the fourteenth century, as well as those of Dieppe: the archives of Rouen have not been burned, yet nothing has been discovered in them bearing upon commercial transactions, which, according to Villaut, were diligently prosecuted from 1364 to 1410. There is, moreover, something very suspicious in Labat's reference to "manuscript annals," of which he does not mention the date, and which he describes as in the possession "of *one* N———." A more worthless chain of evidence can scarcely be found in the annals of imposture or error.

It is contrary to the sound laws of evidence to call upon a man to prove a negative. The Vicomte de Santarem might have rested satisfied with showing that those who maintain the reality of the Dieppe discoveries have what a lawyer would call "no case." But he goes further, and shows, by an elaborate marshalling of the evidence of Arab authors and of travellers, cosmographers, and map-makers belonging to all nations of Europe, from a date considerably preceding the first Portuguese discoveries down to a few years before Villaut's publication, that the Portuguese were the first to explore and give name to the western coast of Africa, S. of Cape Bojador. The most curious part of this division of the investigation is the unanimous testimony of French historians, cosmographers, and map-makers of an earlier date than Villaut, to the priority of the Portuguese discoveries. But for the details we must refer the reader to the work itself.

In removing an error from the field of historical geography, the Vicomte de Santarem has done good service. He has shown that the story of the Dieppe discoveries on the S.W. coast of Africa has no business there. Even though it should hereafter be discovered that mariners from Dieppe did visit that coast in or about 1364, their voyage added nothing to the geographical knowledge of Europe: it has left no trace of itself in geographical nomenclature. It is not even of so much importance as that *ignis fatuus*, the legend of the Zeni, which at least confused and bewildered the geographical nomenclature of Europe for a time. The Dieppe voyage, supposing it to have taken place, did not even introduce errors into geography; it passed like a bird through the air, leaving no trace behind it. Its history, if it ever hap-

pened, belongs to the history of romantic personal enterprise, not of geographical science.

After all, however, what constitutes the principal value of "the Researches" in our estimation, is its Atlas of old (many of them unedited) maps, and the passages scattered here and there, which throw light upon the history of map-making. The Atlas contains fac-similes of the whole or portions of two maps of the eleventh century, one of the twelfth, one of the thirteenth, seven of the fourteenth, nine of the fifteenth, seven of the sixteenth, and three of the seventeenth. Of these no less than sixteen are now published for the first time. As the illustrations of the Atlas are kept strictly subordinate to the main object of the work, some of these maps are only given in part, and are thus less valuable as monuments of the history of the art: so little has been done, however, in this department of geographical history, that even these fragments are welcomed with avidity.

These maps may be divided into three classes, totally differing in character from each other. To the first, we would refer all the "mappemondes" of a circular figure, beginning with that contained in a MS. of the eleventh century, in the library at Leipzig, ending with that found in a MS. of the fifteenth, of Pomponius Mela, in the library at Rheims, and among the rest the celebrated map of Marino Sanuto. These are intended to represent as much of the world as was known to the compilers; the outline is arbitrarily selected, and has no necessary reference to the real figure of the earth, or circles of latitude and longitude. The farthest known regions of Africa are placed where, in our circular maps of the world, is the south pole; the remotest known regions of Europe near the north pole; the western extremity of Europe, and the eastern of Asia, at the opposite ends of the diameter of the hemisphere. This is a representation of the habitable earth (more properly *the inhabited* ὁ οικουμενος) as old as the time of Homer. The limits of the known world had been greatly widened since his day, but it was still considered as an immense island surrounded by a great ocean. The earliest of these maps (if they deserve the name) are very rude. Two lines parallel with the N. and S. diameter of the circle represent the Hellespont, and the sea which washes the coasts of Asia Minor and Syria. Two parallel lines, extending from the W. to those already mentioned, represent the rest of the Mediterranean. The double surrounding circle represents the main ocean. The eastern section of the circle is Asia; the north-western, Europe; the south-western, Africa. At the E. point is placed "Paradisus;" and the names of the principal states and empires are written down with equal contempt of chronology and local position. Sometimes an attempt is made to represent the posi-

tion of Troy, Jerusalem, Rome, Constantinople, &c., by pictures of a city wall. As we come down nearer to our own time the straight lines are gradually transformed into irregular curves, intended to represent the outlines of coasts; and the map of Sanuto, and that in the MS. of Pomponius Mela, at Rheims, evince extensive, and sometimes accurate, geographical knowledge. But the necessity which the arbitrarily-selected form of their outline imposes on the compiler, of modifying the relative positions of distant regions to accommodate it, renders the best of them of comparatively little value.

The second class contains the maps of which that which is found among the Cottonian MSS. in the British Museum, and *said to be* of the eleventh century, the planisphere of Cecco d'Ascoli, of the thirteenth century, and the chart of Africa from the edition of Ptolemy published at Rome in 1508, are specimens. The chart from the Cottonian library appears to be constructed with reference to the relative positions of parallels and meridians, or at least of climates. The planisphere of Cecco d'Ascoli is really a representation of a hemisphere, on which the drafts of Europe, Asia, and Africa, which fill up the whole circle of the first class, are made, with tolerable accuracy, to occupy their proper places, N. of the equator. The last-mentioned specimen is such a section of the hemisphere projected on a plane as is still in use. The works of the first class are little better than toys: in those belonging to the one at present under review we can trace the progress of geographical knowledge during the middle ages.

Of infinitely more value for the purposes of positive and practical geography than either of the two preceding classes is the third. Maps of this class are alluded to in the following passage, quoted by the Vicomte de Santarem from Ibn Khaldún:— "These islands [the Canaries] were discovered by chance, because ships do not navigate these seas unless when driven there by storms. But the two countries [Europe and Africa] on the two shores of the Mediterranean are perfectly known, and are traced on plans and sheets of paper in their real forms; the *rhumbs* of the winds too are marked on them: these plans or papers are called *alkanbas*. Sailors guide themselves by these charts in order to accomplish their voyages; but there is nothing of the kind for the Atlantic Ocean: this is the reason why ships do not venture into this sea, because if they lost sight of the coast they would not know how to work back to it." (p. 100.)

Ibn Khaldún speaks of these marine charts as no novelty in his time (1332-1406): the earliest of which specimens are given in the Vicomte de Santarem's atlas are — the Pizzigani map of 1367, the Catalan map in the king's library at Paris, of

1375, and the map in the MS. atlas in the Pinelli library, of 1384-1400. Maps like these, constructed so as to be of practical utility to navigators, may be presumed to have been delineated with more anxious accuracy than those of mere speculative geographers. Their compilers would be constantly reminded of any errors they might fall into by the bearings which are introduced into them. The introduction of these charts into common use was an era in geography: since that time there have been greater accuracy and precision in the delineation of the outlines and relative positions of sea-coasts at least. The great difficulty of tracing the route of "the ten thousand" arises from the omission of the *bearings;* since the introduction of *alkanbas,* first mariners, and at a later period travellers by land, have adopted the practice of noting the direction of their routes, as well as the distances travelled. This has given a distinctness and coherence to geography which it wanted before.

The charts of the third class representing the W. coast of Africa, which are given in the atlas of the Vicomte de Santarem, contain the history of the geography of that coast. The researches of Mr. Cooley and the Vicomte have established that, previous to the doubling of Cape Bojador, the W. coast of Africa was only vaguely known to the Arabs and Berber tribes at the mouth of the Senegal. It was coasted by no sailors; for the accidental shipwreck of Ibn Fathuma, apparently in the neighbourhood of Arguim, cannot be called a navigation. Our knowledge of the western coast of Africa S. of Cape Bojador begins with the discoveries of the Portuguese, and its progress is registered in these charts. The most important are—Map of Andrea Bianco, 1436; of Gabriel Valsequa, 1439; of Frà Mauro, 1460-70; maps of Gracioso Benincasa of Ancona, 1467 and 1471; map of Juan de la Cosa (Columbus's pilot), 1500; of Diego Ribero, 1529; of Jacques de Vaulx, 1533; of Joam Martinos, 1567; of Guillaume Levasseur, of Dieppe, 1601; of Dupont, of Dieppe, 1625; and of Jean Guerard, 1631. The selection has been determined by the consideration that the authors of these maps (Spaniards, Italians, and Frenchmen) were above suspicion of partiality to the Portuguese, and that their nomenclature, being copied from the Portuguese charts, was evidence of the priority of Portuguese discoveries. This does not add to their value as historical monuments; but when the eminence of the compilers is taken into account, neither does it detract from it. The materials furnished for the history of African geography by the Vicomte de Santarem commence where those supplied by Mr. Cooley's researches terminate, and bring it down to the seventeenth century. They give a truth and precision unknown before to the outline of the African continent. When Mr. Cooley, or some writer treading in his foot-

steps, shall have done for Leo Africanus, Marmol, and others, what he has done for El Bekrí and Ibn Batútah, the result, combined with the labours of the Vicomte de Santarem, will bring down the history of Western African geography to the era when the European attempts to explore the interior commence. It is for this reason that we attribute more value to the indirect than to the direct results of the Vicomte's investigations.

The importance of publishing all ancient maps of any tolerable degree of authenticity that can be recovered is a topic legitimately suggested by the publication under review; but this analysis has already run to such a length that our remarks on that theme must be reserved for another opportunity.

IV.—1. *A Personal Narrative of a Visit to Ghuzni, Kabul, and Afghanistan.* With Illustrations. By G. T. VIGNE, Esq. F.G.S. 1 vol. 8vo.

2. *Travels in Kashmir, Ladak, Iskardo, the Countries adjoining the Mountain Course of the Indus and the Himalaya, North of the Panjab.* With a Map and other Illustrations. By G. T. VIGNE, Esq., F.G.S. 2 vols. 8vo.—By the EDITOR.

HOWEVER slow the progress of geographical discovery on the N.W. frontiers of India may appear, while our attention is fixed on the details of its creeping progress, a comprehensive view of its results shows that it has of late years been steady.

The information respecting these regions embodied in the map attached to the work of the Hon. Mountstuart Elphinstone was derived almost entirely from native routes. That map, and its explanatory memoir, will remain a monument of the industry and sagacity of its compiler, Mr. Macartney; and they have been the starting-point whence subsequent research has advanced—the point of view whence later explorers have taken their departure—as the 'Account of the Kingdom of Kabul,' to which they are attached, may be regarded as having given the first impetus to the progress in discovery since made in the regions to which we are adverting.

In 1811-12 Mr. Moorcroft crossed the Himalaya by the Niti pass, made his way to the great plain between it and the Kuenlun chain, examined the sources and upper courses of the Sutlej and the eastern branch of the Indus, and fixed the position of lakes Rávan and Mánasa. In 1820-22 Messrs. Moorcroft and Trebek, taking their departure from Mundi, penetrated to Ladak; explored the country northward to the valley of the western branch of the Indus, eastward to Chibra on the eastern branch, south-eastward to the valley of the Piti, an affluent of the Sutlej;